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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/965,682	09/26/2001	Mohan Ananda	04500.911	2905

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EXAMINER

FIELDS, COURTNEY D

ART UNIT	PAPER NUMBER
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2137

DATE MAILED: 07/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/965,682

Applicant(s)

ANANDA, MOHAN

Examiner

Courtney D. Fields

Art Unit

2137

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/27/02, 6/19/02</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-34 are pending.

Information Disclosure Statement

2. The Information Disclosure Statement respectfully submitted on 27 February 2002 and 19 June 2002 have been considered by the Examiner.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Sudia (Pub No. 2001/0050990).

Regarding claim 1, Sudia discloses a method for securely transmitting data from a sending communication device to a receiving communication device comprising:

storing at least one private key in a receiving communication device in a secure portion (See page 8, Section 0073)

receiving at a sending communication device at least one public key from the receiving communication device (See page 8, Section 0072)

using at the sending communication device the at least one public key to transform clear digital data into encrypted digital data (See page 1, Section 004 and page 26, Section 0270)

the sending communication device forwarding the encrypted digital data to the receiving communication device (See page 8, Section 0074)

using the at least one private key at the receiving communication device to decrypt the encrypted digital data (See page 8, Sections 0073-0074)

Regarding claim 2, Sudia discloses the claimed limitation wherein the secure portion comprises a processor (See page 21, Section 0248)

Regarding claim 3, Sudia discloses the claimed limitation wherein the processor comprises an Application Specific Integrated Circuit (ASIC) (Clipper chip) having the secure portion for holding the at least one private key (See page 8, Section 0071)

Regarding claim 4, Sudia discloses the claimed limitation wherein the secure manner comprises a means for tamper proofing (See page 8, Section 0073)

Regarding claim 5, Sudia discloses the claimed limitation wherein the means for secure tamper proofing erases the at least one private key upon an indication of tampering (See page 17, Section 0194)

Regarding claim 6, Sudia discloses the claimed limitation wherein using the at least private key at the receiving communication device to decrypt the encrypted digital data further comprises: obtaining the at least one private key from a processor (See page 8, Section 0074)

Regarding claim 7, Sudia discloses the claimed limitation wherein the receiving communication device determines the authenticity of the at least one private key (See page 4, Section 0018)

Regarding claim 8, Sudia discloses the claimed limitation wherein the secure portion comprises a tamper proof ASIC (Clipper chip) (See page 7, Section 0062)

Regarding claim 9, Sudia discloses the claimed limitation wherein the authentication is required for access to the secure portion (See page 15, Section 0179)

Regarding claim 10, Sudia discloses the claimed limitation wherein the authentication utilizes encryption (See page 15, Section 0179)

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 11-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sudia in view of Schwed (US Patent No. 5,592,556). Regarding claims 11 and 21, Sudia discloses a system and apparatus for securing data communications between a sending communication device and a receiving communication device comprising:

a sending communication device comprising:

the sending communication device comprising a first processor comprising a sender's secure portion, the sender's secure portion having at least one sender's private key, the sending communication device a first memory medium comprising a

receiver's public key and a first module configured to forward at least one sender's public key to a receiving communication device associated with the at least one sender's private key,

the sending communication device a first memory medium comprising a receiver's public key and a first module configured to forward at least one sender's public key to a receiving communication device associated with the at least one sender's private key,

an interconnection fabric configured to couple the sending communication device with the receiving communication device,

the sending communication device comprising:

a second memory medium comprising a second module configured to obtain the at least one sender's private key which complements the at least one receiver's public key (See page 7, Sections 0072-0076 and page 10, Sections 0117-0018)

However, Sudia fails to disclose a Analog to Digital Converter (ADC)/Digital to Analog Converter (DAC) associated with the sending communication device.

Schwed discloses a first Analog to Digital Converter (ADC) associated with the sending communication device, the first ADC configured to obtain analog data from a user and convert the analog data to digital data,

the first module configured to transform the digital data to encrypted data using the at least one receiver's public key and provide the encrypted data to the receiving communication device via the interconnection fabric,

and receiving communication device configured to utilize the at least one receiver's private key from the receiver's secure portion to transform the encrypted data back to the digital data

the receiving communication device having a second Digital to Analog Converter (DAC) configured to transform the digital data to resulting analog data (See Column 5, lines 1-53)

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Sudia's stream-oriented encrypted communication with Schwed's vocoding device. This will enable secure communication between an ASIC chip, an ADC/DAC, and a coder/decoder to become integrated into the same speech processing module. (See Schwed, Column 2, lines 63-67 and Column 3, lines 1-7)

Regarding claim 12, (Sudia as modified) discloses the claimed limitation wherein the first processor and the second processor each comprise at least one Application Specific Integrated Circuit (ASIC) (See Sudia, page 8, Section 0073)

Regarding claim 13, (Sudia as modified) discloses the claimed limitation wherein the first module configured to forward the at least one sender's public key to the receiving communication device encapsulates the sender's public key in a data header (See Sudia, page 13, Sections 0142-0148)

Regarding claim 14, (Sudia as modified) discloses the claimed limitation wherein the receiving communication device authenticates the sender's public key (See Sudia, page 15, Section 0179)

Regarding claim 15, (Sudia as modified) discloses the claimed limitation wherein the authentication depends upon verification of a sender's digital signature associated with the at least one sender's public key (See Sudia, page 9, Section 0076)

Regarding claim 16, (Sudia as modified) discloses the claimed limitation wherein the sending communication device authenticates the receiver's public key (See Sudia, page 15, Section 0179)

Regarding claim 17, (Sudia as modified) discloses the claimed limitation wherein the authentication depends upon verification of a receiver's digital signature associated with the at least one receiver's public key (See Sudia, page 9, Section 0076)

Regarding claim 18, (Sudia as modified) discloses the claimed limitation wherein the analog data comprises voice data provided by the user (See Schwed, Column 1, lines 38-56)

Regarding claim 19, (Sudia as modified) discloses the claimed limitation wherein the sending communication device and the receiving communication device are telephones (See Sudia, page 20, Section 0232)

Regarding claim 20, (Sudia as modified) discloses the claimed limitation wherein the receiving communication device comprises:

a second ADC configured to obtain an analog data reply from a receiving user at the receiving communication device and convert the analog data reply to a digital data reply

the second module configured to transform the digital data reply to an encrypted data reply using the at least one sender's public key and forward the encrypted data

reply using the at least one sender's public key and forward the encrypted data reply to the sending communication device,

the sending communication device configured to obtain the at least one sender's private key from the secure portion and utilize the at least one sender's private key to transform the encrypted data reply to the digital data reply

and sending communication device having a first DAC configured to transform the digital data reply to an analog data reply (See Schwed, Column 2, lines 5-42)

Regarding claim 22, (Sudia as modified) discloses the claimed limitation wherein the first memory medium comprising a means for transmitting at least one sender's public key which complements the at least one sender's private key to the receiving apparatus (See Sudia, page 9, Section 0076)

Regarding claim 23, (Sudia as modified) discloses the claimed limitation wherein the sending apparatus comprises a telephone (See Sudia, page 20, Section 0232)

Regarding claim 24, (Sudia as modified) discloses the claimed limitation wherein the telephone further comprises a means for determining if the receiving apparatus is secure (See Sudia, page 20, Sections 0232-0234)

Regarding claim 25, (Sudia as modified) discloses the claimed limitation wherein an interface configured to convey a user when the communication link is secure (See Sudia, page 24, Section 0262)

Regarding claim 26, (Sudia as modified) discloses the claimed limitation wherein the interface comprises an indicator light (button) for conveying whether the communication link is secure (See Sudia, page 1, Section 0007)

Regarding claim 27, (Sudia as modified) discloses the claimed limitation wherein the first ASIC comprises a means for tamper proofing (See Sudia, page 7, Section 0062)

Regarding claim 28, (Sudia as modified) discloses the claimed limitation wherein the means for tamper proofing erases the at least one sender's private key upon an indication of tampering (See Sudia, page 17, Section 0194)

Regarding claim 29, (Sudia as modified) discloses the claimed limitation wherein the access to the secure portion of the ASIC requires authentication (See Sudia, page 10, Section 0118)

Regarding claim 30, (Sudia as modified) discloses a method for receiving secure communication data comprising:

- obtaining encrypted data,
- obtaining at least one sender's public key from a sender of the encrypted data,
- providing at least one receiver's public key to a sending communication device,
- using at least one receiver's private key from a receiver's secure portion to transform the encrypted data into clear digital data,
- converting the clear digital data to clear analog data,
- playing the clear analog data to a receiving user,
- obtaining reply analog data from the receiving user,
- converting the reply analog data to reply digital data,
- obtaining at least one sender's public key,

using the at least one sender's public key to transform the reply digital data to encrypted reply data,

forwarding the encrypted reply data to the sender (See Schwed, Column 8, lines 5-67 and Column 9, lines 1-20)

Regarding claim 31, (Sudia as modified) discloses the claimed limitation wherein the secure portion comprises an Application Specific Integrated Circuit (ASIC) (See Sudia, page 8, Section 0071)

Regarding claim 32, (Sudia as modified) discloses the claimed limitation wherein the secure portion comprises a tamper proofing mechanism (See Sudia, page 8, Section 0073)

Regarding claim 33, (Sudia as modified) discloses the claimed limitation wherein the tamper proofing mechanism comprises:

determining if an unauthorized user attempts to access the at least receiver's private key,

deleting the at least one receiver's private key from the secure portion if the determination is affirmative (See Sudia, page 7, Section 0069)

Regarding claim 34, (Sudia as modified) discloses the claimed limitation wherein the secure portion comprises a second processor (See Sudia, page 21, Section 0248)

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Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Shepard (US Patent No. 6,598,164) discloses a system and method for reducing piracy of digitized information.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Courtney D. Fields whose telephone number is 571-272-3871. The examiner can normally be reached on Mon - Thurs. 6:00 - 4:00 pm; off every Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on 571-272-3865. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cd

cdf

June 22, 2005

Matthew Smithers
MATTHEW SMITHERS
PRIMARY EXAMINER
Art Unit 2137